

IN THE SPECIFICATION

Page 5, please amend the paragraph beginning at line 1, page 5 and ending at line 18 on page 5, which was previously amended in the amendment filed 01 March 2005.

Fig. 1A shows an illustrative embodiment of a magnetic tunnel junction (MTJ) sensor 10 from the prior art. Sensor 10 is viewed from the air bearing surface (ABS) so that, in operation, the magnetic medium (not shown) moves in the image plane vertically with respect to MTJ sensor 10. MTJ sensor 10 includes an MTJ stack 12 disposed between a first shield (S1) layer 14 and a second shield (S2) layer 16. MTJ stack 12 may be characterized as an upper electrode 18 separated from a lower electrode 20 by a tunnel barrier 22. Upper electrode 18 includes a ferromagnetic (FM) pinned layer (PL) 24 having a magnetic moment that is pinned by an exchange-coupled antiferromagnetic (AFM) layer (AF) 26, and a second lead (L2) layer. The lower electrode 20 includes a FM free layer 30 and a first lead (L1) layer 32. MTJ stack 12 operates in the usual manner known in the art except that the stabilization biasing of free ~~[[layer (FL)r]]~~ layer (FL) 30 is provided by a hard magnetic (HM) layer 34 disposed on each side of MTJ stack 12. To prevent a loss of sensitivity from undesired sense current shunting, HM layers 34 are sandwiched between two insulating layers 36 and 38 substantially as shown. Practitioners in the art can readily appreciate that the several layers outside of MTJ stack 12 should be precisely created in a series of steps following an initial etching procedure. The usual processes known in the art give rise to misalignment between the narrow ends of the various layers at the edges of MTJ stack 12, leading to unit performance variations and high unit rejection rates.